

ARI Research Note 86-76

THE TRAINING INFORMATION MANAGEMENT SYSTEM:
User's Manual for the
Training Base Station

Perceptronics

for

ARI Field Unit at Presidio of Monterey, California

TRAINING RESEARCH LABORATORY
Jack H. Hiller, Director

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| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) >The Training Information Management System (TIMS) is a computer-based system which can be used by Army personnel to collect and display training evaluation data during field training exercises, and to generate summary evaluation reports following the exercises. The TIMS has two major subsystems: the Electronic Clip- board System (ECS), and the Training Base Station (TBS). The ECS is a hand-held electronic field training and performance evaluation aid, which contains (over) | | |

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20. Abstract (continued)

→ and displays performance evaluation checklists and other associated information to allow a training evaluator to record the success or failure of a soldier in meeting the standards of performance for selected tasks. The TBS is a computer-based subsystem that maintains multiple checklist databases, transfers data to and from the ECS, and generates printed and displayed summaries of training performance. It is not field-portable, but resides at a fixed location (e.g., the unit headquarters). This research note presents information on, and instructions for using, the TBS. → FIT-19

The complete list of reports, of which this is Vol. 4, is as follows:

- RN 86-85 THE TRAINING INFORMATION MANAGEMENT SYSTEM:
Phase II Final Report
Technical and Management Overview
- RN 86-78 THE TRAINING INFORMATION MANAGEMENT SYSTEM:
Phase II Evaluation Report
- RN 86-79 THE TRAINING INFORMATION MANAGEMENT SYSTEM:
Phase II Functional Specifications
- RN 86-76 THE TRAINING INFORMATION MANAGEMENT SYSTEM:
User's Manual for the Training Base Station
- RN 86-81 THE TRAINING INFORMATION MANAGEMENT SYSTEM:
Software Design Documentation for the
Training Base Station
- RN 86-77 THE TRAINING INFORMATION MANAGEMENT SYSTEM:
User's Manual for the Electronic Clipboard System
- RN 86-82 THE TRAINING INFORMATION MANAGEMENT SYSTEM:
Software/Firmware Design Documentation for the
Electronic Clipboard System

1.0 DOCUMENT PURPOSE AND SCOPE

The purpose of this document is to provide the information and instructions necessary for using the Training Base Station (TBS), one of the two major subsystems of the Training Information Management System (TIMS).

2.0 BACKGROUND

The Training Information Management System (TIMS) is a computer-based system that can be used by Army personnel to collect and display training evaluation data during field training exercises, and to generate summary evaluation reports following the training exercises. The TIMS has two major subsystems. The first, called the Electronic Clipboard Subsystem (ECS), is a hand-held electronic field training and performance evaluation aid. The ECS contains and displays performance evaluation checklists and other associated information to allow a training evaluator to record the success or failure of a soldier in meeting the standards of performance for selected tasks.

The second subsystem is called the Training Base Station (TBS). The TBS is a computer-based subsystem that maintains multiple checklist databases, transfers data to/from the ECS, and generates printed and displayed summaries of training performance. The TBS is not a field-portable subsystem, but rather resides at a fixed location (e.g., the unit headquarters) .

During the current TIMS Phase II development program, primary emphasis has been placed on the design and development of the ECS, in preparation for a Fort Knox field test. Of the effort expended on the TBS, the majority of time was spent in designing and implementing those TBS functions required to support direct interaction with the ECS (e.g., setting initial conditions to be downloaded to the ECS, uploading and downloading of ECS data). Minimal effort was invested in developing a prompted authoring capability for creating new training databases on the TBS. Thus, the majority of pages in this manual are taken to explain the less-prompted database entry, editing, and processing functions, while only a few pages are needed to describe the highly prompted TBS functions which support interaction with the ECS.

3.0 THE TBS

3.1 TBS Hardware

The TBS consists of an IBM PC XT computer, a monochrome video display terminal with a keyboard, an EPSON LQ-1500 printer and associated cabling.

3.2 Setting Up the TBS

To install the TBS, do the following:

- a. Set the IBM PC on a table.
- b. Place the video terminal on top of the IBM PC.
- c. Connect the power cord from the terminal (standard 3-prong male plug) into the power receptacle on the back of the IBM PC (left-most power receptacle).
- d. Connect the "communications" cable from the terminal to the size-keyed connector on the back of the PC (on the right side as you face the back on the PC).
- e. Connect the shape-keyed (i.e., round) keyboard cable connector to the appropriate receptable on the back of the IBM PC.
- f. Connect the 25-pin printer cable to the size-coded receptacle on the back of the IBM PC.
- g. Connect the (3 cable) ECS communications/battery charger cable to the back of the TBS by matching the size-coded 25-pin connectors. The small 9-pin connector is for linking the TBS to the ECS for data downloading and uploading. **WARNING: THIS CABLE MUST BE CONNECTED TO THE IBM PC BEFORE THE POWER IS TURNED ON AND MUST NEVER BE UNPLUGGED WHILE THE IBM PC IS RUNNING.**

- h. Connect the IBM PC power cable (3-prong female plug) to the IBM PC power connector (the second power connector from the left on the back of the IBM PC). Plug the other end into a standard 110 V wall power source.**
- i. Plug one end of the printer power cable (standard 3-prong plug) into the back of the printer (on the right side as you face the back of the printer) and the other end into a standard 110 V power source.**

3.3 Turning on the TBS

Before starting to use the TBS it is important that you learn an "emergency procedure" which you can use if you get to a place where the system is "stuck" and no longer responds to your inputs. If this happens you can press the following keys to re-initialize the system: Press the "Ctrl", "Alt", and "Del" keys all at the same time. Be advised that this procedure will cause the system to restart from scratch, and may cause loss of information you have been working on. Thus, this procedure should only be used in an emergency.

To turn on the TBS do the following:

- a. Turn on the power switch on the IBM PC. The switch is on the right side of the unit (as you face the unit from the front), and is labeled "ON". Note: when you first turn on the unit a memory test will be automatically conducted. The fact that this test is running is indicated by a message displayed in the upper left hand corner of the display which shows the number of kilobytes (KB) of memory which have been successfully tested. When the memory test is complete (the message says "320 KB OK"), and if no problems were detected, the system automatically displays a new message in the upper left hand corner of the display. The new message is a "prompt" asking you to enter the current date.
- b. Enter the current date at the prompt in the upper left hand corner of the display. The correct format for the entry (mm-dd-yy) is shown. If you make a mistake while typing in your entry, you can use the backspace key (←) to erase the incorrect characters. When your entry is complete, type a carriage return (↵). A new prompt will then appear in the upper left corner of the display, asking you to input the correct time.

- c. Enter the correct time. The time should be input as hours (in 24-hour time; 00 through 24), followed by a colon*, followed by minutes (00 through 60). You need not enter seconds or tenths of seconds. The following are example entries:

- o 7:10am would be entered as: 07:10
- o 10:30am would be entered as 10:30
- o 1:32pm would be entered as 13:32

The carriage return key (↵) should be pressed when your entry is complete. When you finish entering the time into the system, and have pressed the carriage return, you should see the following prompt on the screen:

C:\TBSE>

A flashing cursor will be displayed just to the right of the ">" character, indicating that you are expected to make an input at this point. The "C:\TBSE>" prompt will hereinafter be referred to as the "system prompt" meaning that the system is waiting for you to indicate what you wish to do next. Any time you see this prompt you must tell the system which of the four main TBS functions you wish to perform. (See paragraph 3.4 for a discussion of TBS functions.)

- d. Turn on the power switch on the printer when you wish to print. The switch is on the left side of the unit (as you face the unit from the front), and is labeled "POWER" ("ON" and "OFF").

* The shift key is denoted by an "up arrow" (↑).

3.4 TBS Functions

The TBS supports four primary functions:

- (1) Training database entry and editing (via the EinsteinWriter word processing software)**
- (2) Translation of training files created in EinsteinWriter into a form which can be understood by the subsequent "processing" program.. (This must be done before the files can be passed to the ECS.)**
- (3) Processing of translated files so that they will be properly formatted for display on the ECS. (Files must be processed after they have been translated, and before they are passed to the ECS.)**
- (4) Interaction with the ECS (e.g., set/download initial conditions for the ECS, diagnose ECS status, download and upload data to and from the ECS, display/print scores from the ECS).**

Information and instructions for performing each of these functions is provided in the paragraphs which follow.

3.4.1 Training Database Entry and Editing

The EinsteinWriter commercial word processing software is available at the TBS so that you can load new training databases; that is, guides and drills. The term "guide" is used to refer to a series of related training drills which, because they will be used together in the field, need to be available in the Clipboard at the same time. Training databases are identified and downloaded to the the Clipboard as "guides". When a guide is downloaded to the ECS all of its associated drills are also downloaded. As an example, the guide called "Land Navigation" currently contains the following drills:

- o Orient a map to the ground by map-terrain association
- o Determine a location on the ground by terrain association
- o Orient a map using a compass

3.4.1.1 How to Access the EinsteinWriter Software

To access EinsteinWriter you type the word "writer" and then press a carriage return (↵) when you see the system prompt.

3.4.1.2 How to Use the EinsteinWriter Software

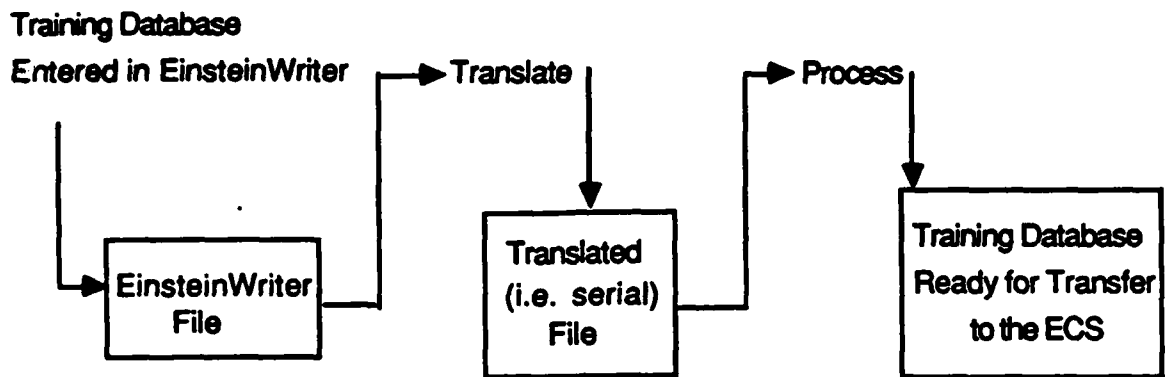
Information on how to use the EinsteinWriter is available in the EinsteinWriter manual, a copy of which has been provided to the Fort Knox BNCOC School.

When you use the EinsteinWriter to create new training databases which are intended to be downloaded to the ECS, it is important to keep in mind the following:

- o Formatting of the databases for proper display on the ECS is done by inserting "codes" into the database after it has been typed into the TBS via the EinsteinWriter, and then "processing" the coded file (see paragraph 3.4.1.3 for more information on how to code the database and paragraph 3.4.3 for information on how to process the coded file).

- o When entering training databases, use the following format:
 - o Left Margin should be set in column one (1)
 - o Right margin should be set in column 54 (you want to have 54 characters per line)
 - o Character pitch should be ten (10)
 - o Do not right justify the text
 - o Space all titles and text exactly as you wish it to appear on the ECS.
- o You will need to assign a name to each data file you create in EinsteinWriter. It is advisable to give your file a name that is meaningful in terms of the data the file contains and the status of the file. Thus, for example, use a shortened version of the "guide" name as your primary file name, add a period after the primary file name, and add a three character extension (e.g., "wtr") which indicates the status of the file (i.e., indicating that the file was written in the EinsteinWriter). An example complete file name is the following: "landnav.wtr", which indicates that it is a Land Navigation guide file that was written in EinsteinWriter.
- o All training databases that have been created in Einsteinwriter must undergo the following additional processes before they can be passed to the ECS:
 - o Must have format codes inserted (see para 3.4.1.3)
 - o Must be "translated" via the TBS "translate" program (see paragraph 3.4.2)
 - o Must be processed (after first being translated) by the TBS "postp" program (see paragraph 3.4.3).

The following diagram shows the steps involved in creating a new training database.



3.4.1.3 Format Coding of Training Database Files

Codes which aid in the proper formatting of data for display on the ECS must be inserted in all training databases created in EinsteinWriter. These codes are read and implemented by the computer when the (translated) Einsteinwriter file is "processed" by the "postp" program, creating a file which can be passed to the ECS.

3.4.1.3.1 Training Database Components Which Must Be Coded

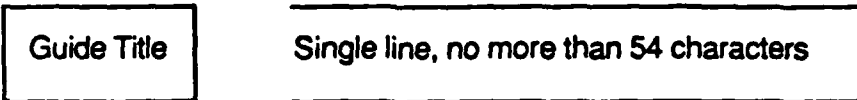
The following paragraphs describe the components of a training database which must be coded. Each component of the database which requires unique handling/formatting by the ECS (i.e., guide name, drill name, text, scorable items), must be defined by the use of the format codes.

Training databases intended for transfer to the ECS are referred to as "training guides" or just plain "guides". A guide consists of a set of related training and evaluation drills that need to be presented together in the field, and thus need to be available in the Clipboard at any given time. Training guides consist of two major components which must be format coded:

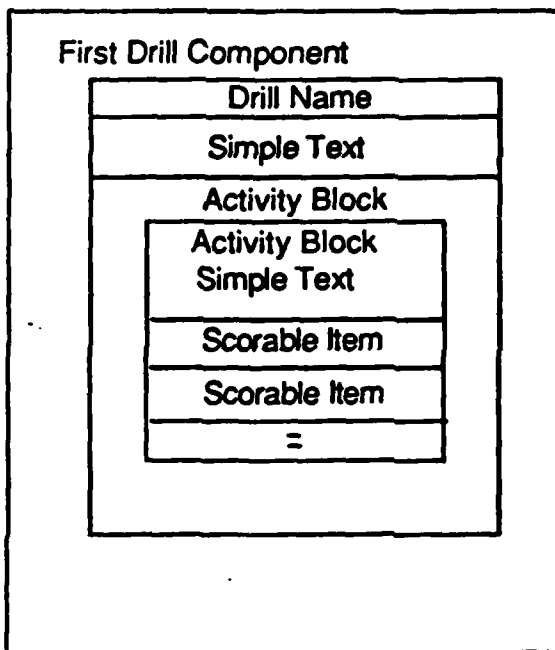
- a. A title (one)
- b. Drill sections (zero to infinite)

Refer to the following diagram as you read about the components of a training guide described in the paragraphs which follow.

Guide Title Component



Drill Component



Up to three lines (54 characters each line)

These may repeat before or after each activity block. No limit on the length.

These may not repeat after the scorable items.

Scorables may repeat after each other.

No free form text can appear after a scorable item until the end of the activity block.

More simple text and activity blocks may or may not occur here.

More drill sections can repeat here. Nothing else can appear until the end of the guide.

"Guide Title" Component

The "guide title" component simply indicates the descriptive name you select for the collection of drills you wish to pass to the ECS at the same time. For example, "Land Navigation" is the title given to the following set of training and evaluation drills:

- o Orient a map to the ground by map-terrain association
- o Determine a location on the ground by terrain association
- o Orient a map using a compass

Once you have assigned a guide title, the TBS will use this title when asking you what information you wish to pass to the ECS at any given time. It will ask you which "guide" you wish to transfer, and will present you with a menu of choices comprised of all of the guide titles you have created. When you select to transfer a particular guide to the ECS, all of the associated drills that make up that guide will automatically be passed to the ECS at the same time.

Any guide title you create can only be one line (54 characters) long.

Drill Component

The term "drill" is used to refer to a collection of text information and scorable evaluation items that an evaluator uses when performing training and evaluation in the field. Examples of drills are the following:

- o Orient a map to the ground by map-terrain association
- o BNCOC MOS 19E, Criterion Scoring Checklist (Day):
Direct main gun/machinegun engagements on an M60A3 Tank.

Drills themselves may contain up to three different types of subcomponents: a "name", "simple text", and "activity blocks"

Drill Name - Every drill must have a name.
Example drill names are the following:

- o Orient a map to the ground by map-terrain association
- o BNCOC MOS 19E, Criterion Scoring Checklist (Day): Direct main gun/machinegun engagements on an M60A3 Tank.

A drill name may be one to three lines of text, each line being no more than 54 characters long.

Simple Text - Simple text is a series of lines of text in free format, each line being no more than 54 characters long. There is no limit on the number of lines which can be included. Typically introductory or background information, or instructions for the evaluator are included herein.

Activity Blocks - "Activity block" is a term used to refer to a series of scorable items and the free-form text (called "activity block simple text") associated with the scorable items (usually introductory information relevant to the scorable items). The lines of text within an activity block can be no more than 54 characters in length. A scorable item can be made up of no more than 15 lines, each line being no more than 54 characters in length. An example coded training database, which includes a coded activity block, is shown in Appendix A.

3.4.1.3.2 Format Codes

The following are the format codes which must be inserted into the EinsteinWriter file in order to identify the various components of the file which require unique handling/formatting by the ECS. Note that all codes are enclosed within parentheses. Note: All codes entered in the database must begin in the first column.

| <u>Code</u> | <u>Meaning of Code</u> | <u>Comments</u> |
|-------------|------------------------|--|
| (tx) | Guide Title | The "x" denotes a number which you assign in order to designate the order in which you wish to see the guides displayed in the TBS menu, when the TBS asks you which guide you wish to download. Thus, (t1) would designate the first guide. |
| (d1) | Begin Drill Component | |
| (en) | End Drill Name | |
| (ab) | Begin Activity Block | |
| (si) | Begin Scorable Item | |
| (eb) | End Activity Block | |

3.4.1.3.3 Use of Format Codes

The use of the above codes is described in the paragraphs which follow.

Use of "Guide Title" Code

The "Guide Title" code identifies the title of the guide. Insert the "Guide Title" code (tx), before the guide title, on the same line. Spaces may be inserted, if desired, after the code and before the title. Remember, however, that the total number of characters in the guide title (including any leading spaces) cannot exceed 54. Type a carriage return after the guide title.

Use of "Begin Drill" Code

The "Begin Drill" code (d1) identifies the start of an entire drill. Insert the "Begin Drill" code on its own line (i.e., type a carriage return after the code), preceeding the line which contains the name of the drill. (Note: the system knows that a drill has ended when it see another "Begin Drill" code or the end of the file.)

Use of "End Drill Name" Code

This code identifies the end of the drill name. Insert the "End Drill Name" code (en) on its own line following the end of the drill name.

Use of "Begin Activity Block" Code

This code identifies the start of a block of text and its associated scorable items. After this code, free-form text of 54 characters per line is accepted until either a "Begin Scorable Item" or "End Activity Block" code is found. Type the "Begin Activity Block" code (ab) on its own line. Activity block simple text may follow the (ab) code on the next line, and does not require a separate code.

Use of "Begin Scorable Item" Code

This code identifies the start of a scorable item. Once a scorable item is found within an activity block, no more free form text can occur in the activity block. Only a series of scorable items may occur. Each scorable item may contain up to 15 lines, with each line being no more than 54 characters in length. Insert the "Begin Scorable Item" code (si), on its own line preceeding each scorable item.

Use of "End Activity Block" Code

This code identifies the end of an activity block. Insert the "End Activity Block" Code (eb) on its own line after the last scorable item in the activity block. Any text found following this code (i.e., on the next line) will be interpreted by the system to be new "Simple Text". Simple text lines will continue to be accepted until a new "Begin Activity Block" or a "Begin Drill Component" code is encountered.

3.4.2 "Translation" of EinsteinWriter Files

Before training databases written in the EinsteinWriter can be transferred to the ECS, they must be "translated" and "processed" (i.e., prepared for presentation on the ECS). The purpose of the translate program is to convert the file you have created on the EinsteinWriter into a format that can be understood by the subsequent "processing" program.

The translation program can be accessed by typing the word "translate", followed by a carriage return, at the system prompt. When you enter the translate program you will be provided with a short explanation of what the program does, and then will be given guidance (in the form of prompts) as to what to do. The prompts you will see and the nature of your proper response are described below:

| <u>Prompt</u> | <u>Your Response*</u> |
|----------------------------------|---|
| Enter Source Drive | Type the letter "c" |
| Enter EinsteinWriter file name | Enter the name of the EinsteinWriter file you wish to translate (e.g., landnav.wrt), then type a carriage return |
| Enter destination drive | Type the letter "c" |
| Enter the ASCII output file name | Enter the same file name as you did in response to the request for the Einsteinwriter file name, only this time change the "wrt" characters following the period to read "txt" (thus, using the above example, the entry would be landnav.txt). Type a carriage return. |

Follow any other directions you see on the screen. When the program is complete the system will return you to the system prompt.

***Note:** if you make mistakes when typing your inputs you can use the backspace key (←) to erase.

3.4.3 Processing of Translated Files

The "processing" program reads the format commands you inserted in your training database as you created it in the EinsteinWriter and prepares the data for proper display on the ECS.

The processing program can be accessed by typing the word "postp" at the system prompt, followed by a carriage return. Note, you must process all new training database files before you can pass them to the ECS. Processing should be done only on files which have been previously translated (see paragraph 3.4.2 above).

When you enter the processing program (after typing "postp" at the system prompt) you will be prompted by the system to enter the name of the translated EinsteinWriter file you wish to process (e.g., landnav.txt). Type the name of the file followed by a carriage return. You will also be asked if you wish to view the output of the processing on the screen. Type your response, yes (y) or no (n) and then type a carriage return. When the program is complete you will be returned to the system prompt.

If you enter the processing program by mistake and wish to exit immediately, hold down the "Ctrl" key and the "c" key at the same time and you will be returned to the system prompt.

3.4.4 Interacting With The ECS

The TBS supports, through self-explanatory prompted screens and menus, all functions necessary for the interaction with the ECS:

- a. Set/Download Initial Conditions
- b. Diagnose ECS Status
- c. Upload/Display/Print Training Data

Each of these options is available for selection on the TBS Main Menu, the first screen you see after typing "tbse" at the system prompt. (Note: typing "tbse" at the system prompts takes you to that portion of the TBS which support interaction with the ECS.) After an option is selected (by typing its number) subsequent frames lead you through the necessary steps to accomplish the selected function.

Menus, showing choices available at any given point, are used extensively to allow for simple selection of desired options. At the bottom of most frames are boxes which explain what keys to push to accomplish certain things (e.g., how to return to a previous frame). The keys referred to in the boxes are function keys, F1 through F10 (they all start with the letter "F"), and they are located at the left side of the keyboard.

Each of the three major functions listed above will be briefly described in the paragraphs which follow.

3.4.3.1 Set/Download Initial Conditions

Certain "initial condition" information must be specified and transferred from the TBS into the ECS before the ECS can be used in the field. Specifically, the following must be specified: the name of the guide to be used, the names of the evaluators who will be using the ECS to evaluate students, and the names of the students who will be evaluated. After this information has been specified it can be transferred/downloaded to the ECS.

To set ECS initial conditions, type "1" at the TBS Main Menu so that you select the "Set/Download Initial Conditions" option.

3.4.3.1.1 Selection of Guides to be Downloaded to the ECS

When you enter and process training databases (referred to as guides; see paragraph 3.4.1.3.1) on the TBS, the names of the guides will be automatically entered in the "Select Training Guide" menu on the TBS. However, in order to transfer the correct guide to the ECS for a particular field exercise, you must indicate to the TBS which guide you wish to download. You identify the desired guide by following the instructions on the "Select Training Guide" menu.

The name of the Training Guide you wish to download (i.e., the name given to the collection of drills you wish to have available in your ECS for a given exercise in the field) must be specified each time you prepare to download information to the ECS. Note that the current version of the ECS will only accept and store one "guide" at a time.

To identify the training guide to be downloaded, type the number "1" (designates the "Select Training Guide" option) at the "Set/Download Initial Conditions" TBS menu, and then type the number of the guide you wish on the "Select Training Guide" menu.

3.4.3.1.2 Entering of Training Evaluator Names

The names of the evaluators who will be using the ECS in the field must be specified. In the current version of the TBS and ECS, the names of up to ten evaluators who will be in the field can simply be loaded into the TBS once and the same list downloaded each time to the ECS (so that all evaluator names will be available in the ECS).

To enter evaluator names, type the number "2" (designates the "Enter Evaluator Names" option) at the "Set/Download Initial Condition" TBS menu, and then enter the names desired on the "Enter Evaluator Names" screen. If you make a mistake while typing a name, use the "4 left arrow" key (←) to erase, or simply type over the incorrect letters. Use the carriage return key (↵) to advance to the next name. If you go past the name you wish to edit, go back to the preceding menu (by pressing the F2 function key) and then reselect the "Enter Evaluator Names" option. When you come back to the evaluator name screen the cursor will again be at the top of the list of names and you can space down to where you wish to be.

3.4.3.1.3 Entering of Soldier Names

The names of the soldiers (i.e., students) who will be evaluated in the field must be specified. Again, as with the evaluator names, it is only necessary with the current system to load the total list of student names (maximum of 40) once, and then download the same list each time to the ECS.

To enter soldier names, type the number "3" (designates the "Enter Soldier Names" option) at the "Set/Download Initial Conditions" TBS menu, and then type the desired names on the "Enter Soldier Names" frame. If you make a mistake while typing a name, use the "4 left arrow" key (←) to erase, or simply type over the incorrect letters. Use the carriage return key (↵) to advance to the next name. If you go past the name you wish to edit, go back to the preceding menu (by pressing the F2 function key) and then reselect the "Enter Soldier Names" option. When you come back to the soldier name screen the cursor will again be at the top of the list of names and you can space down to where you wish to be.

Forty names can be entered. Only ten names are displayed on the screen at a given time. To access/enter additional names you can use the F4 function key (as indicated on the screen).

3.4.3.1.4 Downloading of Initial Conditions

There are several kinds of information that need to be passed down to the ECS from the TBS. These include the evaluator names, soldier names, and training guide names you specify, along with other information which is provided automatically by the TBS (such as date and time information).

In order to transfer (i.e., download) this information to the ECS you must:

- o Attach an ECS to the TBS using the cable provided. Connect the ECS to the TBS by attaching the small 9-pin cable connector from the TBS to the connector on the ECS labeled RS-232/BATT.
- o Put the ECS in communication mode by first turning on the ECS (by depressing the "ON" button in the upper left corner of the unit), and then selecting the communication ("COMM") option on the ECS Maintenance Screen. (Note: the ECS Maintenance Screen can be accessed by pressing the "MAINT" touch key from the "ID EVAL" screen.)
- o Type "1" to select the "Set/Download Initial Conditions" option on the TBS Main Menu, then type "4" to select the "Download Initial Conditions to the ECS" option, and then follow the instructions on the succeeding TBS screens.

3.4.3.2 Diagnose ECS Status

Prior to downloading information into the ECS it is a good idea to diagnose the status of the ECS to which you are about to pass information. To do this you must do the following:

- o Connect the ECS to the TBS by attaching the small 9-pin cable connector from the TBS to the connector on the ECS labeled RS-232/BATT.
- o Put the ECS in communication mode by first turning on the ECS (by depressing the "ON" button in the upper left corner of the unit), and then selecting the communication ("COMM") option on the ECS "Maintenance" screen. (Note: the ECS "Maintenance" screen can be accessed by pressing the "MAINT" touch key from the "ID EVAL" screen.)
- o Select the "Diagnose ECS Status" option on the TBS Main Menu and follow any subsequent directions given on succeeding TBS screens.

3.4.3.3 Upload/Display/Print Training Data

Evaluation scores collected in the field via the ECS can be uploaded to the TBS and then displayed and printed. The method for performing these functions is described in the paragraphs which follow.

3.4.3.3.1 Uploading of Information from the ECS

Student scores, collected in the field with the ECS must be uploaded to the TBS so that they can be summarized, displayed and printed. In order to upload scoring information from the TBS to the ECS you must do the following:

- o Connect the ECS to the TBS by attaching the small 9-pin cable connector from the TBS to the connector on the ECS labeled RS-232/BATT.
- o Put the ECS in communication mode by first turning on the ECS (by depressing the "ON" button in the upper left corner of the unit), and then selecting the communication ("COMM") option on the ECS "Maintenance" screen. (Note: the ECS "Maintenance" screen can be accessed by pressing the "MAINT" touch key from the "ID EVAL" screen.)
- o Type the number "2" at the TBS Main Menu to select the "Upload/Display/Print Training Data" option, type "1" at the "Upload/Display/Print Training Data" screen to select the "Upload Data from the ECS Unit" option, and then follow the instructions on the succeeding TBS screens.

3.4.3.3.2 Displaying and Printing of Summary Evaluation Reports

The TBS will display and print summary reports showing the scores for a selected soldier (scores from all three passes will be shown), guide, and drill. It will also show the date and time the scores were collected in the field. In order to see the scoring summary report displayed on the TBS screen you must type the number "2" to select the "Upload/Display/Print Training Data" option from the TBS Main Menu, then type "2" to select the "Display/Print Training Data" option on the "Upload/Display/Print Training Data" screen, and then follow the directions on the succeeding screens. Note that the summary report will always be displayed on the screen; you may also request to have it printed on paper in addition to having it displayed. the TBS will "ask" you if you wish to have the report printed when you are responding to the display screen prompts which come up after you select the "Display/Print" option.

If the printer jams while printing, the system will display a message on the screen telling you of the problem, and will give you the option to "Abort, Retry, or Ignore". You should indicate you wish to abort (by typing the letter "a"), fix the printer and start again.

3.5 Turning Off the TBS

To shut down the TBS do the following:

- o Return to the system prompt (for example, by typing a "4" at the TBS Main Menu to select the "Exit" option)
- o Type "cd\" and then a carriage return at the system prompt
- o Type "ph" at the system prompt
- o Flip the TBS power switch to the "OFF" position.

APPENDIX A

EXAMPLE CODED TRAINING DATABASE

(t3) Land Navigation

(d1)

CRITERION SCORING CHECKLIST (Task No. 071-329-1011)

Orient a Map Using a Compass

(en)

(ab)

(si)

DID THE SOLDIER:

1. Place the compass parallel to a north-south grid line with cover side of compass pointing towards top of map?

(si)

2. Rotate the map and compass until the directions of the declination diagrams formed by the black index line and the compass needle match the directions shown on the declination diagram?

(si)

3. Orient the map so that the north seeking arrow is within 3 degrees of the angle shown in the GM angle of the declination diagram?

(si)

4. Complete the task within one minute?

(eb)

CRITERIA FOR PASSING TEST: The soldier must receive a Go on all items during one evaluation. He may not be evaluated more than three times.

(d1)

CRITERION SCORING CHECKLIST (Task No 071-329-1012)

Orient a Map to the Ground by Map-Terrain Association

(en)

(ab)

(si)

DID THE SOLDIER:

1. Orient the map to within +/- 30 degrees of magnetic north?

(si)

2. Complete the task within 10 minutes?

(eb)

CRITERIA FOR PASSING TEST: The soldier must receive a GO on all items by the third evaluation to receive an overall GO.

(d1)

CRITERION SCORING CHECKLIST (Task No. 071-329-1005)

Determine a Location on the Ground by Terrain Assoc.

(en)

(ab)

(si)

DID THE SOLDIER:

1. Determine his location on the ground to within +/- 100 meters of his actual position?

(si)

2. Complete the task with 15 minutes?

(eb)

CRITERIA FOR PASSING TEST: The soldier must have a GO on all items by the third evaluation to receive an overall GO.